



Hand-held Conductivity Measuring Units



measuring
•
monitoring
•
analysing

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- Measuring range:
Conductivity from
0.0...200.0 $\mu\text{S}/\text{cm}$ to 0.0...200.0 mS/cm
Temperature $-5.0\text{ }^\circ\text{C}$... $+100.0\text{ }^\circ\text{C}$
- Measuring accuracy:
Conductivity starting with
 $\pm 0.5\%$ of measured value, $\pm 0.3\%$ FS
Temperature $\pm 0.2\%$ of measured value, $\pm 0,3\text{ K}$
- Serial interface,
Minimum/maximum memory, hold function
- Determination of resistance, salinity, and TDS
- Robust housing, IP 65, front



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Model:
HND-C



Description

The KOBOLD hand-held conductivity measuring units of the HND-C105 model or HND-C110 model are compact conductivity measuring units with solidly connected probes that can be used universally. Due to the double display, both, the conductivity and the temperature value can be displayed simultaneously. Both HND-C models offer functions like minimum/maximum value memory, hold function, auto-off function, and AutoRange (automatic adjustment of the optimum measuring range).

Due to the high temperature dependency in conductivity measurement, both manual measuring units have automatic temperature compensation.

With the improved unit HND-C110, the determination of resistance, salinity, and TDS are also part of the scope of functions.

Areas of application

- Chemistry, pharmacy, food industry
- Laboratory application

Technical Data

Measuring principle: 2-electrode conductivity measuring cell with temperature sensor integrated into the shaft
Electrode material: graphite

Measuring range:

- Conductivity 0.0...200.0 $\mu\text{S/cm}$
0...2000 $\mu\text{S/cm}$
0.00...20.00 mS/cm
0.0...200.0 mS/cm
(manually adjustable or automatically)
 - Temperature -5.0...+100.0 $^{\circ}\text{C}$
- Accuracy: (± 1 digit, at nominal temperat. 25 $^{\circ}\text{C}$)
- Conductivity $\pm 0.5\%$ MV $\pm 0.3\%$ FS or ± 2 $\mu\text{S/cm}$
 - Temperature $\pm 0.2\%$ MV ± 0.3 K
- Resolution:
- Conductivity 0.1 $\mu\text{S/cm}$, 1 $\mu\text{S/cm}$, 10 $\mu\text{S/cm}$ or 0.1 mS/cm
 - Temperature 0.1 $^{\circ}\text{C}$
 - Resistance 0.001 $\text{k}\Omega$, 0.01 $\text{k}\Omega$ or 0.1 $\text{k}\Omega$
 - Salinity 0.1
 - TDS 1 mg/L
- Display: two 4-digit LC-displays
- Operating temp.: 0 to +50 $^{\circ}\text{C}$ (housing),
Meas. cell: -5 to +80 $^{\circ}\text{C}$ (continuous)
to +100 $^{\circ}\text{C}$ (short-term)
- Storage temp.: -20 to +70 $^{\circ}\text{C}$
- Storage humidity: 0 to +95% rH (non-condensing)
- Electrode: 2-electrode conductivity measuring cell with temperature sensor integrated into the shaft.
Electrode material: graphite, solidly mounted with 1 m cable
- Output: serial interface
(via 3-pin jack, transformer on RS232 or USB optional)
- Power supply: 9 V-monobloc battery
(included in the scope of delivery),
external 10.5-12 V_{DC} via jack
- Material: housing made of impact-resistant ABS plastic
- Protection: IP 65, front
- Dimensions: housing 142 x 71 x 26 mm (H x W x D),
electrode max. \varnothing approx. 12 mm,
length approx. 120 mm
- Weight: approx. 255 g
(incl. battery and electrode)



Scope of functions:

- Min-/Max value memory
- Hold function: »freezing« of the current value
- Automatic-off function: 1...120 min (can be deactivated)
- AutoRange: Automatic measuring range adjustment (can be deactivated)
- Automatic temperature compensation
- Replace battery display

Additional functions with model HND-C110

- Resistance, salinity, and TDS-determination
- Temperature coefficients that can be selected:
Natural water, linear compensation or no compensation
- Increased temperature measuring range

Ordering Information

Order-no.	Housing design
HND-C105	Conductivity measuring unit, standard
HND-C110	Conductivity measuring unit with additional functions (see technical data)

Accessories for conductivity measuring units HND-C

Order-no.	Description
HND-Z002	Plug power supply (220/240 V _{AC} , 50/60 Hz), 10,5 V _{DC} / 10 mA
HND-Z021*	Case with recess (275 x 229 x 83 mm)
HND-Z022*	Universal case with egg crate foam (275 x 229 x 83 mm)
HND-Z023*	Large case with recess (394 x 294 x 106 mm)
HND-Z031	Interface converter on RS232, galvanically isolated
HND-Z032	Interface converter on USB, galvanically isolated
HND-Z033	Adapter RS232 converter on USB-interface
BUS-SW9M	Software for recording measurement data on a computer, for instruments of the HND-series without logger function

* Observe instrument dimensions

Additional accessories upon request